

What is claimed is:

1. A method for identifying a composition to improve the appearance of damaged skin on a patient, comprising

topically applying a composition consisting essentially of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and a dermatologically acceptable carrier or excipient to a section of the skin of the patient; and

measuring the changes in skin appearance or biochemical function,

wherein the patient is not being treated for viral infection or skin cancer at the same section of the skin.
2. The method of claim 1, wherein the composition is applied daily.
3. The method of claim 1, wherein the composition is applied one or more times a week.
4. The method of claim 1, wherein the composition comprises about 5% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine.
5. The method of claim 1, wherein the composition comprises about 1% to about 2% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and is applied daily.
6. The method of claim 1, wherein the composition comprises about 1% to about 2% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and is applied one or more times a week and less than once a day.
7. The method of claim 1, wherein the composition comprises about 1.25% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and is applied daily.
8. The method of claim 1, wherein measuring the changes in skin appearance is performed by visual, photographic, or microscopic assessment or inspection of the skin.
9. The method of claim 1, wherein the skin is photo-damaged.

10. The method of claim 1, wherein the skin contains fine lines or wrinkles characteristic of aged skin.

11. A method for treating aged or photo-damaged skin, comprising topically applying an effective amount of a composition consisting essentially of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine or a biologically active derivative thereof and a dermatologically acceptable carrier or excipient to a section of the skin of a patient exhibiting clinical wrinkles or photo-damage, wherein the patient is not being treated for viral infection or skin cancer at the same section of the skin.

12. The method of claim 11, wherein the composition is applied daily.

13. The method of claim 11, wherein the composition consists essentially of about 5% 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine.

14. The method of claim 11, wherein the composition is applied one or more times a week.

15. The method of claim 11, wherein the composition consists essentially of about 1% to about 2% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine.

16. The method of claim 11, wherein the composition consists essentially of about 1% to about 2% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and is applied daily.

17. The method of claim 11, wherein the composition consists essentially of about 1% to about 2% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and is applied one or more times a week and less than once a day.

18. The method of claim 11, wherein the composition consists essentially of about 1.25% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and is applied daily.

19. The method of claim 11, wherein measuring the changes in skin appearance is performed by visual, photographic, or microscopic assessment or inspection of the skin.

20. A method of inducing an immune cytotoxic response in a section of damaged dermal or epidermal tissue of a patient comprising topically applying an effective amount of a cosmetically or dermatologically acceptable composition comprising an immunomodulatory compound capable of attracting macrophage cells to the area surrounding the section of tissue, whereby the section of tissue exhibits improved appearance or physiological properties following the application of the composition after a period of at least 4 weeks.

21. The method of claim 20, wherein the Toll like receptor 7 is activated by the action of the immunomodulatory compound.

22. A method for identifying a composition for improving the physical property of aged or photo-damaged skin, comprising topically applying a composition comprising a Toll-like receptor 7 activator compound to the skin, and measuring the physical or biochemical changes in the skin following treatment for more than 4 weeks.

23. The method of claim 22, wherein the composition comprises about 1% to about 2% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine.

24. The method of claim 24, wherein the composition is applied daily.

25. The method of claim 22, wherein the composition is a cream.

26. The method of claim 22, wherein the measurement of physical change in the skin comprises visual or photographic assessment.

27. A method for identifying a precancerous region of skin, comprising topically applying a composition comprising 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine and monitoring the physical appearance of the skin, whereby a precancerous region becomes inflamed or irritated following application of the composition.

28. The method of claim 27, wherein the composition is applied daily.

29. The method of claim 28, wherein the composition comprises about 1% to about 2% of 1-isobutyl-1H-imidazo [4,5,-C] quinolin-4-amine.